SANYO

Digital Video Recorder
With Built-in QUAD Compressor

- Two-week nonstop recording at 30 frames/sec
- With 4ch in/out terminals for a 4-screen display
- Exclusive in/out terminals for audio recording and playback
- Side-by-side installation in a 19" rack
- Remote surveillance and operation via network

DSR-M804
4-channel
NTSC/PAL

DIGITAL
NETWORK SOLUTIONS

Half Rack Width
TWO-WEEK NONSTOP RECORDING

Made in Japan

The product introduced here is manufactured in Japan utilizing advanced technologies and quality control.

DSR-M804 4-channel NTSC/PAL

DIGITAL
NETWORK SOLUTIONS

A DVR with four-screen recording function. Digital processing allows for quick retrieval. Features two-week nonstop recording at 30 frames/sec. Comes with audio in/out terminals and supports networking as well.

Compact, but Boasting Full Capabilities with 4ch In/Out Terminals

DSR-M804 has a compact body suitable for stores and offices with limited space, such as convenience stores, fast food stores, etc. Its digital recording with four independent in/out terminals enables outstanding picture quality and clear sound. It allows one-week nonstop recording in high-definition quality and two-week nonstop in standard quality. Supports live video image surveillance and remote control via a network*.

* With a DVR Utility Software.

Playback and Image Retrieval while Video Recording

DSR-M804 can record at the speed of 30 frames/sec (NTSC) and allows more than 336 hours of recording time with 720 x 480 pixels (NTSC). In addition, recorded images can be played back simultaneously and impeccable surveillance is possible even while retrieving and playing back desired video images.

Built-in 120GB HDD

DSR-M804 performs one-week (168 h) of nonstop 30 frames/sec (NTSC) recording with "HIGH mode" picture quality. Moreover, the unit has an expansion bay for an additional HDD; another 120GB HDD enables more than two-week (336 h) of nonstop recording time. The user can also use the optional HDD for mirror recording* to back up important data. (For further details about HDD expansion, contact the place of purchase.)

*Mirror Recording
DSR-M804 each come with one HDD unit. By adding an optional HDD of the same capacity, it is possible to record the same video on two HDDs, thus allowing for a backup.

PICTURE QUALITY / CAPACITY	SUPER	HIGH	STANDARD
120GB	84 h	168 h (1-week)	336 h (2-week)
240GB	168 h (1-week)	336 h (2-week)	672 h (4-week)

Audio Recording with 4 Inputs

DSR-M804 comes with audio terminals for four inputs and one output. The implementation of MPEG1 Audio Layer2 allows playback of clear sound. Audio can be easily downloaded over a network, along with video images. During recording, however, CH1 and CH2 are mixed and recorded on the same track. The same applies for CH3 and CH4.

CH4 CH3 CH1 CH2 | 4 Inputs

Use audio button for selection | 1 Output

Live Audio	Playback Audio
CH1	
CH2	
CH3	
CH4	
CH1+CH2	CH1+CH2
CH3+CH4	CH3+CH4
AUTO	AUTO
OFF	OFF

Reduction of Expenses

Unlike existing VCRs, this unit uses digital HDD recording, thus saving cassette handling time and freeing up space normally needed for tape storage. In addition, its compact-size body requires less area for an installation.

Compact half rack width

Digital recording is now available in a compact package of 210mm (8.27inches) in width, which makes it possible to install two DSR-M804 units side-by-side in a 19" rack. It is an ideal solution for the limited spaces of convenience stores, or casinos where a large number of DVRs are needed.

19" Rack
210mm (8.27 in.)
DSR-M804
Standard VCR

Multiple Recording Methods

Available modes are "Normal recording" for surveillance images, "Timer recording" for predefined recording hours, and "Alarm recording" with an external alarm signal. The latter two can be combined to perform multiple recording functions.

Timer recording
Uniform daily programming and independent programming for each day of the week are both available. Moreover, holidays can be input by specifying the date and month for which Sunday programming is applicable.

Alarm recording
When an alarm signal is received from an external sensor, DSR-M804 will automatically start recording in the mode predetermined by the user.

Motion Sensor

DSR-M804 comes with a built-in motion sensor. Different settings can be made for each camera image independently. The sensor can detect moving objects within the screen by picking up changes in brightness. The user can use this feature to trigger an alarm recording.

Rear View

Audio input terminals
Audio output terminal
Microphone input terminal

The device sends out clear sound and receives inputs from external devices.
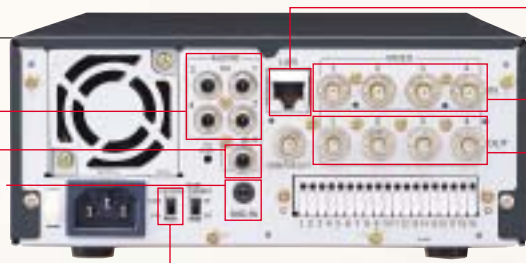
100Base-TX / 10Base-T Ethernet terminal
Standard connection to PCs and HUB.
Camera input terminals
Camera output terminals
Switching between NTSC / PAL is possible.

◆ Various Playback Functions

DSR-M804 features six playback functions: Playback, Still, Cue / Review (7.5x to 180x), Frame advance, Slow (1/8 to 1/2, forward and backward), and Search.

◆ 4-Screen Display

The unit is capable of displaying video images from four cameras on one monitor by splitting the screen. A full-screen display, either by using the sequential switching function or designating a channel, is also possible. In addition, a separate display setting is available for exclusive use at the time an alarm is triggered.
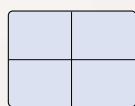
4-screen display   Full-screen

◆ Search Functions

The two search functions — "Alarm search" and "Date / time search" — call up desired images instantly.

Alarm search

Recorded alarm images are retrieved from a list of alarm events and played back.
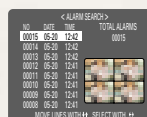
Time/date search

The user can designate time and date of recorded video images and play back retrieved images.
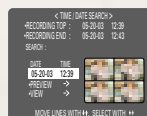
◆ Security Lock

There are two levels of security lock — Administrators and Users. — offering users the best option for their security needs.

◆ Buzzer

Depending on the user's preference, the unit can be setup to emit a warning buzzer when (1) there is an alarm; (2) HDD becomes full; (3) recording suddenly stops; (4) an abnormality occurs; (5) an operation button is pressed.

◆ TV-System Switching between NTSC / PAL

A changeover switch in the back directs video signals of surveillance camera input / monitor output to NTSC or PAL circuit. (Note: this switch only route the video signal to an appropriate circuit and does not mean that the unit converts a NTSC input to PAL format, or vice versa.) Also, the AC power source is for 120 to 240V.

This compact DVR excels in networking and expandability.

◆ Built-in USB Terminal

The unit has a built-in USB terminal in the front. A CF card reader* allows the user to upload / download menu items and set up other DSR-M804 units.

*For a validated CF reader, consult www.sanyosecurity.com.

◆ Built-in RS-485 Terminals

The unit has built-in RS-485 terminals for SSP (SANYO Security Serial Protocol) usage. Separately sold system controller VSP-8000 can control up to 128 units of DSR-M804.

◆ Built-in Control Terminals

These terminals make it possible to control the DSR-M804 using Resistive Ladder Remote Controller.

◆ Also Comes with a LAN Terminal

There is a built-in 100Base-TX / 10-Base-T LAN terminal, allowing remote surveillance / control from PC via LAN with the DVR Utility Software.
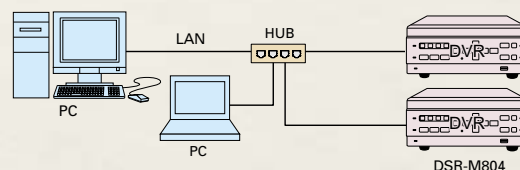
◆ DVR Utility Software for DSR-M804

VA-SW80LITE software is included in the product package. By installing this software on a PC, it will be possible to connect the PC and DVRs over a LAN and monitor live video or control DVRs on the PC.

System environment

	Multi Monitoring	Single Monitoring
System	IBM PC / AT or Compatible	
CPU*1	Pentium®4 3GHz or faster	Pentium®III 800MHz
Memory	256MB	
Interface	100Base TX, USB(1.1)	
Display	XGA (1,024 x 768 pixel), 16-million color or greater	
	AGP graphics card or graphic chipset with hardware overlay support*2	
Sound	Audio subsystem that supports up to 48Khz (or greater) stereo playback*3	
OS	Windows® XP Professional	

*1 For multiple split-screen monitoring, CPU clock frequency of 750MHz is required per screen.
*2 Driver software that is compatible with DirectX8.1 must be installed.
*3 If a sound card is not installed, the sound which is recorded in "AUDIO RECODING ON" mode cannot be played back.

A high-end software package VA-SW804 is also available (sold separately).

Other Features

- 30-day memory back-up
- Resume function
- End-of-medium alarm
- On-screen mode setting, menu languages built in: English / French / Spanish
- Built-in time date generator

- Auto repeat recording
- Alarm counter
- Automatic daylight saving time adjustment
- Lifetime counter
- Through output of video
- Push-lock terminals for easy installation (refer to the rear panel photo)

System environment

	Multi Monitoring	Single Monitoring
System	IBM PC / AT or Compatible	
CPU*1	Pentium®4 3GHz or faster	Pentium® III 800MHz
Memory	256MB	
Interface	100Base TX, USB(1.1)	
Display	XGA (1,024 x 768 pixel), 16-million color or greater AGP graphics card or graphic chipset with hardware overlay support*2	
Sound	Audio subsystem that supports up to 48Khz (or greater) stereo playback*3	
OS	Windows® XP Professional	

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*3 If a sound card is not installed, the sound which is recorded in "AUDIO RECODING ON" mode cannot be played back.

DSR-M804

255.2
210
391.5
380
96
86

VA-RACMK2 (option)
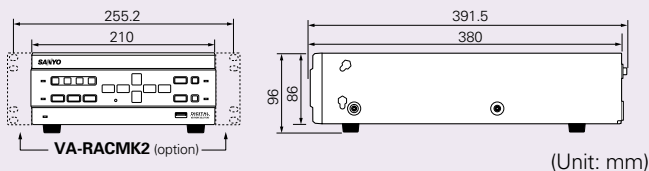
(Unit: mm)

MODEL		DSR-M804
General	Hard disk capacity	120GB or 240GB (120GB x 2)
	Picture resolution	NTSC: 720 x 480 (Super / High / Standard) PAL: 720 x 576 (Super / High / Standard)
	Compression	MPEG2 (Video), MPEG1 Audio layer2 (Audio)
	Picture quality	3 levels (Super / High / Standard)
	Recording type	Frame
	Recording speed	NTSC: 30 frames/sec PAL: 25 frames/sec
	Screen display	1-screen display / 4-screen display
	Number of cameras	4
	Menu language	English / French / Spanish
	Clock setup	Month / Day / Year / Hour / Minute / Second
	Signal format	NTSC / PAL color signal standard (Switchable)
	Play back	Playback / Still / Search / Cue / Review / Frame advance / Slow
Search mode	Time/date search	Search by time and date
	Alarm search	Search by alarm event list
Video	Video input	1.0 V p-p / 75 Ω unbalanced (BNC x 4)
	Video output	1.0 V p-p / 75 Ω unbalanced (BNC x 4)
	Monitor output	1.0 V p-p / 75 Ω unbalanced (BNC x 1)
Audio	Audio input	-8dbs, 27 kΩ unbalanced (RCA pin jack x 4)
	Audio output	-8dBs, 600 Ω unbalanced (RCA pin jack)
	Microphone input	-60dBs, 10 kΩ unbalanced (3.5mm mini jack)
Interface	LAN terminal	100BASE-TX / 10BASE-T (RJ-45)
	USB terminal	For CompactFlash reader (Front)
Control signal	RS-485	3 terminals: A / B / GND
	Remote control in	External switch connection
	Clock adjust input	Normal open, Low level active
	Clock adjust output	Normal 5 V, Low level active
	Non REC output	Normal 5 V, Low level active
	Alarm input	Normal open, Low level active x 4
	Alarm output	Normal 5 V, Low level active
	Alarm reset input	Normal open, Low level active
	Warning output	Open collector (500mA), Low level active
	Full output warning	Open collector (50mA), Low level active
	Series REC input	Normal open, Low level active
	Series REC output	Normal 5 V, Low level active
Electrical	Power source	120 V to 240 V AC, 50 / 60 Hz
	Current consumption	480mA - 300mA
Physical	Operating conditions	Temperature: 5°C to 40°C [41°F to 104°F], Humidity: 10% to 80%
	Dimensions (W x H x D)	210 (W) x 96 (H) x 380 (D) mm [8.27(W) x 3.78(H) x 14.96(D) in.]
	Weight (approx.)	3.7Kg [8.2 lbs.]

*Specifications subject to change without notice

Warnings regarding HDDs
• Do not attempt to install or replace a HDD on your own. You cannot use these HDDs on PCs.
• The unit may be damaged if it is exposed to an impact or vibration, or the power plug is disconnected during operation.
• SANYO will not be held liable for any data loss due to an HDD error or a failure during recording.
* "Microsoft" and "Internet Explorer" are registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
* All other company and product names are registered trademarks and/or trademarks of their respective owners.

Horizontal resolution 520 TV Line Camera devices

1/3" Color CCD DSP High-sensitivity/resolution Camera
VCC-6594

1/3" Color CCD DSP High-sensitivity/resolution Camera
VCC-5984

1/3" Color CCD DSP High-resolution Camera
VCC-6674 New

1/3" Color CCD DSP High-resolution Camera
VCC-6574A

1/3" Color CCD DSP High-resolution Day/Night Camera
VCC-4594 DAY NIGHT

1/4" Color CCD DSP High-resolution Day/Night Speed Dome Camera
VCC-9400 DAY NIGHT New

1/4" Color CCD DSP High-resolution Speed Dome Camera
VCC-9300

1/4" Color CCD DSP High-resolution Day/Night AF Zoom Camera
VCC-ZM400 DAY NIGHT

1/4" Color CCD DSP High-resolution AF Zoom Camera
VCC-ZM300

1/4" Color CCD DSP High-resolution Day/Night Vandal Proof Dome Camera
VDC-D1184VA New DAY NIGHT

1/4" Color CCD DSP High-resolution Day/Night Vandal Proof Dome Camera
VDC-D2184VA New DAY NIGHT

SSP compatible devices

IP Product

Network Video Server
VSP-SV2000

Recorder

16ch Digital Video Recorder	**DSR-3016**
9ch Digital Video Recorder	**DSR-3009**
1ch Digital Video Recorder	**DSR-3000**
1ch Digital Video Recorder	**DSR-M800** New
Digital Real Time VCR	**DTL-4800**
960-hour Recording + Real Time VCR *The optional VZU-485/232C board is required	**SRT-8960**
168-hour Recording + Real Time VCR *The optional VZU-485/232C board is required	**SRT-8168**
40-hour Recording + Real Time VCR *The optional VZU-485/232C board is required	**SRT-8040**
40-hour Recording + Real Time VCR The optional VZU-40485 board is required	**SRT-4040**
40-hour Recording + Real Time VCR The optional VZU-40485 board is required	**SRT-4040DC** New
8-hour Recording Real Time VCR	**SRC-850A**
960-hour Recording Time Lapse VCR The optional VZU-40485 board is required	**TLS-4960** New
72-hour Recording Time Lapse VCR The optional VZU-40485 board is required	**TLS-4072** New

SSP System Unit

SSP System Controller
VSP-8000
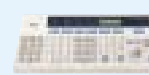
SSP Coaxial Converter
VSP-CB10

Camera

1/4" Color CCD DSP High-resolution Day/Night Speed Dome Camera DAY NIGHT	**VCC-9400**
1/4" Color CCD DSP High-resolution Speed Dome Camera	**VCC-9300**
1/4" Color CCD DSP High-resolution Day/Night AF Zoom Camera DAY NIGHT	**VCC-ZM400**
1/4" Color CCD DSP High-resolution AF Zoom Camera	**VCC-ZM300**

Multiplexer

16-channel Digital Transport Multiplexer (Color)	**MPX-CD163**
16-channel Duplex Multiplexer (Color)	**MPX-CD162**
16-channel Duplex Multiplexer (B/W)	**MPX-MD162**
9-channel Digital Transport Multiplexer (Color)	**MPX-CD93**
9-channel Duplex Multiplexer (Color)	**MPX-CD92**
9-channel Duplex Multiplexer (B/W)	**MPX-MD92**

*Caution: please consult the instruction manual to ensure safe and proper operation of the product.

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